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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|------------------------------|------------------|
| 09/770,430 | 01/26/2001 | Edward A. Richley | D/96604 690-009683US(PAR) | 7063 |

7590 11/06/2002

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EXAMINER

NGUYEN, JENNIFER T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2674 | 3 |

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/770,430 | RICHLEY, EDWARD A. |
| Examiner | Art Unit | |
| Jennifer T Nguyen | 2674 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 January 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a) All b) Some * c) None of:

 1. Certified copies of the priority documents have been received.

 2. Certified copies of the priority documents have been received in Application No. _____.

 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

 * See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Claims 1-3 recites the limitation "the wall" in "the wall of said cavities". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Crowley et al. (U.S. Patent No. 5,262,098).

Regarding claim 1, referring to Figs. 1A, 1B and 2, Crowley teaches an addressable display device comprising: a light transparent support body containing a plurality of anisotropic particles (10) contained within dielectric liquid-filled cavities (12) thereof, the walls of said cavities having a higher dielectric constant than that of said dielectric fluid (16); a parallel pair of electrical conductors (22, 24), one on each surface of said support body and at least one of which is light transparent; each of said anisotropic particles (10) of the support body having dissimilar sections (18, 20) of contrasting optical appearance and electrical conductivity, one section having an anisotropy for inducing a dipole moment which renders said section electrically-responsive; said dielectric liquid (16) containing an ionizable charge director material which, under application of an electric field between said electrical conductors (22, 24), forms mobile ions of opposite charge which move within said liquid towards the cavity wall adjacent the electrical

conductor of opposite polarity, said mobile ions inducing said dipole moment and rotating said particles so that the one section thereof faces the electrical conductor of opposite polarity each time the polarity between said conductors is reversed (col. 1, lines 26-67 and col. 2, lines 1-28).

Regarding claim 2, Crowley teaches the particles require the application of an electric field of a predetermined magnitude or threshold to the electrodes to cause the particles to release from attraction to one electrode and to rotate and face the other electrode (col. 1, lines 26-67 and col. 2, lines 1-28).

Regarding claim 3, Crowley further teaches particles are bichromal balls and said sections are hemispheres (Figs. 1A, 1B and 2, col. 1, lines 26-67 and col. 2, lines 1-28).

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Sheridon (U.S. Patent No. 4,143,103) teaches method of making a twisting ball panel display.

Sheridon (U.S. Patent No. 4,126,854) teaches twisting ball panel display.

Richley (U.S. Patent No. 5,900,192) teaches method and apparatus for fabricating vary small two-color balls for a twisting ball display.

Sheridon et al. (U.S. Patent No. 6,428,868) teaches twisting-cylinder display.

Sheridon (U.S. Patent No. 6,441,946) teaches swollen gyron display and method of making the same.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**. The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached at **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC. 20231

Or faxed to: 703-872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

Jennifer T. Nguyen
Patent examiner
Art Unit 2674



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600